REMARKS

Reexamination and reconsideration of this Application, withdrawal of the rejections, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above claim amendments and remarks that follow.

Claim 1 has been amended to recite that the one or more differential rigidity portions have a rigidity that is different from the rigidity of the remaining frame portion. Claim 8 has been amended to more clearly recite the structure of the projections. Applicant submits no new matter has been added by the present claim amendments. New claims 16-20 have been added and find support in original claims 1-7. Claims 1-20 are pending.

Rejections Under 35 U.S.C. §112

Claims 1-15 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicant respectfully traverses the present rejection.

The Examiner alleges the term "differential rigidity portion" is unclear as used in independent claim 1 and throughout the remaining claims. The Examiner also alleges the projections recited in claim 1 have not been sufficiently set forth and further argues it is unclear how the projections define the differential rigidity portion.

Although Applicants do not necessarily agree with the present rejection, claim 1 has been amended to recite that the differential rigidity portions have a rigidity that is different from the rigidity of the remaining frame portions. Thus, Applicant respectfully submits the phrase "differential rigidity portions", in light of the remaining claim language and the supporting written description, accurately sets forth the invention in both structure and location.

Claim 1 expressly recites that the differential rigidity portions are located in the proximity of an outer peripheral edge of the seat frame. Paragraph [0022] of the present specification similarly discloses that the differential rigidity portions are symmetrically located at the sides of the seat frame. Moreover, FIG. 2 clearly illustrates components 11 and 11', which are described in paragraph [0040] of the present specification as being the portions of different rigidity. Likewise, paragraph [0041] refers to components 11 and 11'

as being the differential rigidity portions and being located in the proximity of the outer peripheral edge. Applicant also directs the Examiner to paragraph [0023] of the present specification, which points out that the different rigidity of these portions of the seat frame reduces compressions and rubbing caused by the pedaling motion in the inside thigh areas of a user.

In light of the above, Applicant respectfully submits a skilled person viewing the present application as a whole would easily recognize what is meant by the term "differential rigidity portions." More specifically, the skilled person would understand that the differential rigidity portions are part of the seat frame located at the sides of the frame typically in contact with a user's inner thighs, and that these portions are formed to have a rigidity that is different from the rigidity of the remaining portions of the frame, this difference in rigidity being sufficient to provide local flexibility in these areas. Thus, Applicant respectfully submits the term "differential rigidity portions" is easily understandable in light of the express claim language alone but is even further described the present specification, including references to the appended drawings.

Applicant likewise respectfully submits the "projections" recited in the claims are also clearly described in the specification. FIG. 8 illustrates the projections as component 14. Moreover, paragraphs [0042] through [0045] describe the structure and function of the projections. Particularly, the projections are described as being "comblike" structures. Applicant respectfully submits a skilled person would clearly understand the recited projections as being a plurality of individual pieces extending from the recess formed in the periphery of the frame. Thus, they are projections because they "project" outwards from the recess.

In light of the above, Applicant respectfully submits all terms in the present claims and clear and definite. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

The Examiner also alleges claim 8 does not structurally limit the claims. Applicant points out that claim 8 has been amended to recite that the projections have a cross section and shape as to provide a predetermined flexural and shear strength relative to load activity

in a defined direction. Applicant respectfully submits the present claim language appropriately structurally recites the support structure. Thus, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

Rejections under 35 U.S.C. §102

Claims 1 and 8-15 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,629,728 to Losio *et al*. Applicant respectfully traverses this rejection.

The Examiner alleges Figures 1, 2, and 7 show a frame having portions of different rigidity, particularly in relation to components labeled 2'. The Examiner also alleges a component on the rear edge of the seat in Losio *et al*. forming an aperture having mesh therein would be a portion of different rigidity. Applicant respectfully submits the Examiner is improperly isolating the term "portions of differential rigidity" from claim 1 and is failing to consider that the claim as a whole recites a support structure with multiple features not disclosed or suggested by Losio *et al*.

Present claim 1 recites a support structure comprising a substantially rigid or semirigid frame having one or more portions with a rigidity that is different from the rigidity of the remaining frame portions and that is adapted impart local flexibility. The differential rigidity portions are specifically located in the proximity of an outer peripheral edge of the frame. Moreover, the frame has at least one recess along its outer peripheral edge, and each of the differential rigidity portions comprise a plurality of elongated projections extending outwards from the recesses. Applicant respectfully submits Losio *et al*. fail to disclose or suggest such a specific support structure for multiple reasons.

Initially, Applicant submits Losio *et al*. fail to disclose a substantially rigid or semirigid frame having discrete portions that have a rigidity that is different from the rigidity of the remaining frame portions. Present claim 1 recites a frame formed of a material such that the frame is substantially rigid or semirigid across the entirety of the frame. Against this backdrop, the presently claimed frame has discrete portions that are specifically formed to have a rigidity that is different than the rigidity of the remaining

portions of the frame. Losio *et al.* do not disclose a frame generally having this structure with discrete portions of different rigidity.

In column 3 (lines 56-61), Losio *et al.* describes the components that the Examiner alleges are differential rigidity portions. Losio *et al.* do not so describe their invention. Losio *et al.* discloses that the frame itself is made of a plurality of ribs which are connected to one another and simultaneously form a flexible, but rigid, lightweight framework. Losio *et al.* further disclose that this structure enables the saddle (as a whole) to flex during use. Thus, Losio *et al.* describe a frame that is in general formed in a rib-like structure. Since the bulk of the frame is formed of this rib-like structure, the ribs do not create discrete portions of the frame having a rigidity that is different from the rigidity of the remaining portions of the frame. Rather, the entire frame is designed to structurally flexible. This is not, however, the only distinction of the presently claimed support structure over the seat disclosed by Losio *et al.*

Similar to the above distinction, claim 1 recites that the differential rigidity portions are adapted to impart local flexibility. This is closely associated to the differential rigidity portions being located in discrete portions of the frame. As noted above, Losio *et al.* expressly disclose that its seat frame is designed so that the frame (as a whole) flexes during use. Thus, Losio *et al.* disclose a frame having general flexibility. This is distinctly different from the present invention, wherein the differential rigidity portions impart local flexibility.

Present claim 1 also recites that the differential rigidity portions are located in the proximity of the outer peripheral edge of the frame. Losio *et al.* clearly do not disclose such location for discrete areas of differential rigidity. As seen in FIG. 2 and FIG. 7, the frame of Losio *et al.* is formed of ribs that originate near the center of the frame and extend outward. The frame is designed, however, to have an intact periphery that extends entirely around the frame to ensure uniformity of support. Thus, the ribs of Losio *et al.* form the actual body of the frame and are not localized at the outer peripheral edge of the frame, as presently claimed.

Further to the above, present claim 1 recites that the frame has at least one recess along its outer peripheral edge, and each of the differential rigidity portions comprise a plurality of elongated projections extending outwards from the recesses. The Examiner broadly alleges that the ribs (component 2') of Losio *et al.* are located in a recess formed along an outer periphery of the frame. Applicant respectfully submits the Examiner is mistakenly viewing the illustrations of Losio *et al.*

FIG. 6 of Losio *et al.* provides a cross-section of its seat. As seen therein, the frame has an overall concave shape. In the plan view of FIG. 2, Applicant respectfully submits the Examiner is mistaking the general concavity of the frame as illustrating a recess. Again, Applicant submits the Examiner is failing to recognize the localized nature of the differential rigidity portions in the present claims versus the general shape and structure of Losio *et al.*

Applicant respectfully directs the Examiner's attention to FIG. 1 of the present application. Label 12 points to an arcuate line delineating a recess along the outer peripheral edge of the frame. This is a recess truly formed in the outer peripheral edge because it actually interrupts the periphery of the frame. In other words, the peripheral edge of the frame in the present invention does not extend around the frame in an uninterrupted manner. Rather, the recesses formed in the periphery interrupt the peripheral edge and, without the inclusion of the differential rigidity portions, the recesses would actually form a cut-out in the frame. This is not the case with Losio *et al.*

Rather, in Losio *et al.*, the frame simply generally has a concave shape. A recess formed in a structure indicates a portion of the structure has is missing to form the recess. In the frame of Losio *et al.*, the concave shape cannot be viewed as forming a recess because there can be no portion of the frame that must necessarily be absent in order for the recess to exist.

Moreover, in the present application, the recess is clearly formed along the outer periphery of the frame. Every illustration in Losio *et al.* shows its frame as a being continuous around the periphery thereof. There is no portion of the peripheral edge of the frame that is removed or indented to form a recess. Present claim 1 precisely recites that the recess is formed along the outer peripheral edge of the frame. The language "along the outer

peripheral edge" cannot be misinterpreted to read upon the frame of Losio *et al.* that is generally concave in shape. Such concavity is not "along the outer peripheral edge" of the frame.

In light of the above, Applicant respectfully submits the presently claimed frame is distinct from the frame disclosed by Losio *et al.* as Losio *et al.* clearly fail to disclose or suggest each and every element of the presently claimed support structure. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

Claims 1 and 8-15 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,739,656 to Yu. Applicant respectfully traverses this rejection.

As above, Applicant respectfully submits the Examiner has failed to appreciate the various elements of the presently claimed support structure and is likewise misinterpreting the disclosure of the cited reference. Particularly, Applicant respectfully submits the Examiner has misidentified components 26 and 27 of Yu. At column 2 (lines 38-62), Yu discloses that component 26 is a plurality of supporting bars that are "suspended" in the receiving spaces (labeled 24) formed between the longitudinal rib (component 25) and the remaining portion of the main body (component 20). Component 27 actually references the open spaces between the supporting bars (component 26).

Moreover, even if the supporting bars (component 26) of Yu are differential rigidity portions (which Applicant certainly does not suggest), the seat of Yu clearly fails to expressly disclose all of the presently recited claim elements. For example, the supporting bars of Yu are not located in the proximity of an outer peripheral edge of the frame. The frame of Yu completely encompasses the supporting bars. Yu expressly discloses that the frame surrounds and defines the receiving spaces (component 24), which are located in the sitting area of the frame (see column 3, lines 7-13). This area (the area where the supporting bars (component 26) are located) is designed to be relatively softer than the rigid plastic base. Thus, it is clear that the supporting bars (component 26) of Yu are not located at the outer peripheral edge of the frame. Rather, the frame of Yu is rigid along its entire periphery and a softer section is designed toward the central "sitting" portion of the frame.

Applicant respectfully points out that every embodiment of Yu illustrated in FIG. 3 through FIG. 6 provides a frame having a main body that extends completely around the periphery of the frame and is uniform in its rigidity. Yu only discloses support bars at interior sections of the frame. This provides a softer "sitting" section while maintaining rigid support around the entire periphery of the frame. Thus, Yu in no way discloses or suggests differential rigidity portions along the outer peripheral edge of the frame, as presently claimed.

Applicant also respectfully submits that Yu does not disclose or suggest a frame having at least one recess along its outer peripheral edge. Every illustration in Yu clearly shows a bicycle seat of standard shape having a continuous periphery. As discussed above, the recitation of a recess formed in the periphery of the frame indicates an interruption in the flow of the peripheral edge of the frame – an indentation or cut-out, for example. Referring to FIG. 1 of the present application, component 12 specifically illustrates such a recess. Yu neither discloses nor suggests such a structure. Yu only discloses a regularly shaped bicycle seat having a frame with a continuous peripheral edge that is uninterrupted by any recess. Thus, Yu does not disclose or suggest a frame with a recess along its outer peripheral edge, as presently claimed.

Since, as illustrated above, Yu does not disclose or suggest a recess along the outer peripheral edge of a frame and does not disclose or suggest differential rigidity portions along the outer peripheral edge of a frame, Yu likewise does not disclose or suggest differential rigidity portions comprising a plurality of elongated projections extending outwards from the recesses. The Examiner alleges the support bars (component 26) of Yu are "projections". Applicant respectfully submit, however, this is merely an attempt to conform the cited reference to the claimed invention that does not consider the full disclosure of the cited reference or the full scope of the present claim language.

In present claim 1, the frame is specifically recited as having has at least one recess along its outer peripheral edge, and the differential rigidity portions are specifically recited as being a plurality of elongated projections extending outwards from the recess in the periphery of the frame. The frame of Yu simply does not disclose such a structure. The

support bars of Yu are not projects because they do not project outward. Rather, they extend between, and are support on both ends, by the overall seat frame.

The support bars (component 26) of Yu extend between the central rib (component 25) and the peripheral frame structure (component 20). As pointed out above, Yu does not disclose a recess in the periphery of the frame. In fact, the area where the support bars (component 26) are located cannot even reasonably be described as a recess – it certainly is not a recess in the outer periphery of the frame since the outer periphery of the frame in Yu is completely intact and continuous around the entire frame. Thus, the support bars in Yu cannot be characterized as extending outwards from a recess in the periphery of the frame.

In light of the above, Applicant respectfully submits Yu fails to disclose or suggest each and every aspect of the rejected claims. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the present rejection.

Allowable Matter

Applicant appreciates the Examiner's indication that claims 2-7 would be allowable is re-written to overcome the rejection under §112 discussed above and to incorporate all of the elements of the base claim and intervening claims. In this regard, Applicant respectfully directs the Examiner's attention to new claims 16. Applicant respectfully submits these new claims incorporate subject matter indicated by the Examiner as being allowable and further incorporate the subject matter of independent claim 1. Applicant also respectfully submits the language of claims 16-20 is clear and definite.

Applicant respectfully submits that all claims, as now submitted, are in condition for immediate allowance. Accordingly, a Notice of Allowance is respectfully requested in due course. If any minor formalities need to be addressed, the Examiner is directed to contact the undersigned attorney by telephone to facilitate prosecution of this case.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow

consideration of this paper, such extensions are hereby petitioned under 37 CFR §1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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